



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,826	12/27/2001	Sang-Ho Choi	P67479US0	9854

7590 12/29/2004

JACOBSON HOLMAN, PLLC.
PROFESSIONAL LIMITED LIABILITY COMPANY
400 Seventh Street, N.W.
Washington, DC 20004

EXAMINER

HOM, SHICK C

ART UNIT	PAPER NUMBER
----------	--------------

2666

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/026,826	Applicant(s) CHOI ET AL.	
	Examiner Shick C Hom	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/27/01</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2666

DETAILED ACTION

Drawings

1. Figures 1 and 2 should be designated by a legend such as -- Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Art Unit: 2666

Claim Rejections - 35 USC § 112

3. Claims 1, 3-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 lines 1-2 recite an inter-packet data service node handoff however no target-PDSN have been recited in claims 1, 3-6 and therefore is not clear how and to what is the source-PDSN being handed off to.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 3-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-6 of Application No. 10/026,825. Although the conflicting claims are not

Art Unit: 2666

identical, they are not patentably distinct from each other because of the following:

For claims 1, 3-6, the claims 1, 3-6 of copending application 10/026,825 discloses a method for performing an intra-packet data service node (PDSN) hard handoff, comprising the steps of: (a) setting up a channel link passing through a target base station controller (T-BSC), a source base station controller (S-BSC), a source packet control function (S-PCF) and a PDSN by establishing a channel link between the S-BSC and the T-BSC via a mobile station center (MSC) in an active packet session mode; (b) performing the hard handoff between the S-BSC, the T-BSC and a mobile station (MS); and (c) transmitting or receiving user packet data exchanged between the MS and the T-BSC through the established channel link to or from the PDSN in case the hard handoff is completed (see claim 1);

wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC (see claim 3);

wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit identification code (CIC) as an extender in the Handoff Required message (see claim 4);

wherein the step (a) includes the step of: (a2) transmitting a Handoff Request message from the MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC (see claim 5); and

wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification code (CIC) as an extender in the Handoff Request message (see claim 6).

For claims 1, 3-6, claims 1, 3-6 of copending application number 10/026,825 disclose all the subject matter of the claimed invention with the exception of the packet data service node (PDSN) being the source-PDSN (S-PDSN) (claims 1, 3-6 of the copending application 10/026,825 do not recite the PDSN being the source). However, claim 1 recite both transmitting or receiving packet data to or from the PDSN clearly indicate that

Art Unit: 2666

it would be obvious to the person of ordinary skill in the art at the time of the invention to replace the PDSN unit as taught by the copending application with the S-PDSN. The motivation for providing the S-PDSN in the method of claim 1 of copending application 10/026,825 being that it provide the source of packet data, i.e. transmits packet data to the mobile station.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35

Art Unit: 2666

U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barna (2002/0046277) in view of Madour (2003/0053431).

Regarding claim 1:

Madour disclose the method for performing an inter-packet data service node (PDSN) hard handoff (see paragraph 0019 which recite inter-PDSN handoff of a mobile station), comprising the steps of: (a) setting up a channel link passing through a target base station controller (T-BSC), a source base station controller (S-BSC), a source packet control function (S-PCF) and a source-PDSN (S-PDSN) by establishing a channel link between the S-BSC and the T-BSC in an active packet session mode (in Fig. 2 see the link passing through the target-BSC 64, the source-BSC 61, the source PCF 62, and source-PDSN 63 including the link between the source-BSC 61 and target-BSC 64 via the mobile station MS 11 and paragraph 0016 which recite establishing the handoff during the data session); (b) performing the hard handoff between the S-BSC, the T-BSC and a mobile station (MS) (see paragraph 0039-0040 which recite the inter-PDSN handoff of a mobile station from the source base station controller and the target BSC); and (c) transmitting or

Art Unit: 2666

receiving user packet data exchanged between the MS and the T-BSC through the established channel link to or from the S-PDSN in case the hard handoff is completed (see paragraphs 0035, 39, and 0041 which recite at the completion of the handoff the associated T-BSC and the T-PDSN).

Regarding claim 2:

Barna et al. disclose further comprising the steps of: (d) establishing a channel link between the T-BSC, a target packet control function (T-PCF) and a target-PDSN (TPDSN) in a dormant packet session mode (see Fig. 2 which shows the link between the T-BSC, T-PCF and T-PDSN and paragraph 0043 which recite the dormant packet session mode); (e) releasing the channel link set up between the S-BSC, the S-PCF and the S-PDSN (see paragraph 0043 which recite releasing the S-PDSN); and (g) performing a point-to-point (PPP) establishing process and a mobile Internet protocol (MIP) registering process between the MS and the T-PDSN (see paragraph 0040 which recite the MS engaged in the internet session including the registration request message to the PDSN-2 to establish the PPP connection).

For claims 1-6, Barna et al. disclose all the subject matter of the claimed invention with the exception of the mobile station center as in claims 1, 2; wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from

Art Unit: 2666

the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC as in claim 3; wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit identification code (CIC) as an extender in the Handoff Required message as in claim 4; wherein the step (a) includes the step of: (a2) transmitting a Handoff Request message from the MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC as in claim 5; and wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification code (CIC) as an extender in the Handoff Request message as in claim 6.

Madour from the same or similar fields of endeavor teach that it is known to provide the mobile station center (see paragraphs 0028-0029 and 0036 which recite the MSC connection and the clear complete message being sent to the MSC); wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC (see abstract and paragraphs 29 and 33 which recited the MSC receiving the handoff required message from the S-BSC); wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit identification code (CIC) as an extender in the Handoff Required message (see paragraph 33 which recite the

Art Unit: 2666

PANID); wherein the step (a) includes the step of: (a2) transmitting a Handoff Request message from the MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC (see abstract and paragraphs 0029, 0033); and wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification code (CIC) as an extender in the Handoff Request message (see paragraph 33 which recite the PANID).

Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the mobile station center; wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC; wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit identification code (CIC) as an extender in the Handoff Required message; wherein the step (a) includes the step of: (a2) transmitting a Handoff Request message from the MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC; and wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification code (CIC) as an extender in the Handoff Request message as taught by Madour in the communications method of

Art Unit: 2666

Barna et al. The mobile station center; wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC; wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit identification code (CIC) as an extender in the Handoff Required message; wherein the step (a) includes the step of: (a2) transmitting a Handoff Request message from the MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC; and wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification code (CIC) as an extender in the Handoff Request message can be implemented by connecting the MSC including the transmission of Handoff Required message and circuit identification code being as an extender in the Handoff Request message of Madour between the MS, source-BSC, target-BSC, and the PDSNs of Barna et al. The motivation for using the MSC including the transmission of Handoff Required message and circuit identification code being as an extender in the Handoff Request message as taught by Madour in the communication method of Barna et al. being that it provides more efficiency for the system since the system uses a single center for handoff of the

Art Unit: 2666

mobile station rather than having duplicate circuits for inter-PDSN handoff.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Madour et al. disclose optimized packet-resource management.

Schneider et al. disclose methods and apparatus for real-time performance monitoring in a wireless communication network.

Madour discloses handoff in radio telecommunications networks.

Purnadi et al. disclose session or handoff methods in wireless networks.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Monday to Friday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2666

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH

A handwritten signature in black ink, appearing to be 'JMT' or similar, written in a cursive style.

DAVE TON
PATENT EXAMINER